

File Edit View Tools Window Help

US-PAT-NO: 5704024

DOCUMENT-IDENTIFIER: US 5704024 A

TITLE: Method and an apparatus for generating reflection vectors which can be unnormalized and for using these reflection vectors to index locations on an environment map

KWIC

Detailed Description Text - DETX(30):

The select logic 1510 is coupled to receive the components Rx, Ry, Rz of the reflection vector and determines the component of the reflection vector that has the largest magnitude. The select logic unit 1510 also determines the sign of the reflection vector's component with the largest magnitude. Based on these determinations, select logic 1510 (1) supplies a two-bit signal to multiplexor 1515 in order to cause this multiplexor to identify the axis of this largest coordinate as the major axis, and (2) supplies a three-bit signal on line 1530, which identifies the indexed face of the cubic environment map, to conventional texture mapping hardware.



(11) Patent Number: 5,704,024
(12) Date of Patent: Dec. 30, 1997

Related U.S. Pat. Nos. 5,704,024 and 5,704,025, both filed on Dec. 30, 1997.

References: "Texture Mapping as a Fundamental Drawing Primitive", Proc. ACM Symposium on Computer Graphics, pp. 255-265, Nov. 1992.

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Microsoft

RStart

11:24 AM

DERWENT-ACC-NO: 2000-231625

DERWENT-WEEK: 200021

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TITLE: Game apparatus for commercial
advertisement display,
performs texture mapping to specific area on
three
dimensional game screen

PATENT-ASSIGNEE: NAMCO LTD[NAMCN]

PRIORITY-DATA: 1998JP-0222534 (August 6, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES MAIN-IPC		
JP 2000051519 A	February 22, 2000	N/A
007 A63F 013/00		

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
JP2000051519A	N/A	1998JP-0222534
August 6, 1998		

INT-CL (IPC): A63F013/00

ABSTRACTED-PUB-NO: JP2000051519A

BASIC-ABSTRACT:

NOVELTY - The advertising data including notice period data is acquired and is converted as a 3D image. By texture mapping to specific area on 3D game screen, advertising data is displayed.

USE - For displaying commercial advertisements.

ADVANTAGE - Advertising data acquired is changed to 3D image, thereby advertising content can be changed arbitrarily. The game screen is of 3D and with high level description power. Advertising contents are updated by communication, thereby the income for the advertiser is increased. **DESCRIPTION**

OF DRAWING(S) - The figure shows block diagram of game apparatus.

CHOSEN-DRAWING: Dwg.3/6

TITLE-TERMS: GAME APPARATUS COMMERCIAL
ADVERTISE DISPLAY PERFORMANCE TEXTURE
MAP SPECIFIC AREA THREE DIMENSION GAME
SCREEN

DERWENT-CLASS: P36 W04 W05

EPI-CODES: W04-X02; W05-E03;

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: N2000-174790

US-PAT-NO: 6036601

DOCUMENT-IDENTIFIER: US 6036601 A

TITLE: Method for advertising over a computer network utilizing virtual environments of games

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Abstract Text - ABTX (1):

A method is provided for advertising within the virtual environments of games. Default images of games are replaced by alternative textures having advertisements implemented therein. An ad server coordinates the matching of ads to demographic data of the game player and properly accommodates ads in formats from game information provided by game sources. The game player is visually influenced by advertisements as he or she views the virtual world of the game, as plug-in software replaces the default images with virtual pictures and figures utilizing an advertisement. View statistics are retrieved from the game player's computer or console to rate viewing effectiveness for ad placement confirmation and billing purposes.

TITLE - TI (1):

Method for advertising over a computer network utilizing virtual environments of games

Brief Summary Text - BSTX (3):

The present invention is a method for advertising within virtual environments of games played over a network. Advertisements are used as plug-ins for 3D texture areas within an Internet game, as a non-interactive means of advertising, which is directed to a wide variety of players having a multitude of different demographic profiles.

Brief Summary Text - BSTX (5):

Use of the Internet as a global communications network has dramatically increased over the past decade. A wide variety of companies can market, advertise, and sell their respective products via the worldwide web. The advertising activity can receive effective and immediate responses because the

many users are mindful of the many client software programs (i.e. web browsers) available. The Internet is extensively used for entertainment purposes as well, and repositories for playing games are one of the many services provided by the Internet

Brief Summary Text - BSTX (6):

Known in the art are methods for advertising over a network, and more notably, methods for combining automated casino-type games with real-time product advertising. See U.S. Pat. No. 5,823,879, Goldberg, et al. Information regarding goods or services are exchanged between users as they play games such as blackjack, craps, or roulette, etc. Exchanged advertising information is adapted to be shown to users who fit a general demographic profile. The game players may interactively respond to questionnaires or enticing product information.

Brief Summary Text - BSTX (7):

Advertising is also simultaneously implemented in computer games that enable remote participants to respond to live broadcast sporting games described in U.S. Pat. No. 5,643,088, Vaughn et al. Interactive ad messages are transmitted and downloaded from a central computer system means and made available for immediate feedback by the network user following the game.

Brief Summary Text - BSTX (8):

In conjunction with TV and radio advertisements, ads via the Internet are disruptive, and they are displeasing to a user not looking for such marketing ploys. Also, most advertisers wish to direct the ads towards specific viewers or listeners, but this becomes too difficult over such a vast network, and ads are unintentionally shown to a wide demographic. The wide variety of people using a global network such as the worldwide web makes it difficult for the advertiser to know which advertisement or location of the advertisement is most effective, and, in particular, there is no way of measuring an actual audience. Network game playing servers can match some demographic profiles to aim specific advertisements towards a select user, but the range of the profile is still lacking, as certain games themselves already attract a specific group. Internet game players and worldwide web users want to play interactively in the games, not further encumbered with the interruption of surveys and advertisements. Marketing companies can still, however, advertise effectively within games played over a network that would influence users of a larger demographic profile, while the game player is not disrupted from the game

environment, and is not prompted or asked to focus his/her attention away from the featured game screen.

Brief Summary Text - BSTX (10):

U.S. Pat. No. 5,643,088, Jul. 1, 1997 (Vaughn et al.), shows a game of skill or chance played simultaneously by several participants remote from each other also provides for interleaved interactive **advertising**. Communication means provide to each participant the common game along with interactive **advertising**.

Brief Summary Text - BSTX (11):

U.S. Pat. No. 5,823,879, Oct. 20, 1998 (Goldberg et al.) teaches a game playing method and apparatus for automating games such as blackjack, poker, craps, roulette, baccarat and pai gow. The invention may also be used to play such games on the Internet or an interactive cable television network. During a game, **advertising** is selectively provided by comparing player personal information with a desired demographic profile.

Brief Summary Text - BSTX (16):

It is the objective of the present invention to provide a non-interactive method of **advertising** within game screen environments on the Internet, which does not interrupt the playing of the game, yet exposes the user to the **advertisement**. A variety of shapes and colors that make up patches of a game background are replaced by similar shape ad textures embedded in certain locations of the game. As a game character, or as the viewer himself, walks around or moves in some manner on the game screen or within the game environment, he or she views an **advertisement** in a location normally occupied by a similar shaped wall, picture, or machine, etc. A user playing a game, which he or she has linked to or downloaded from the Internet, controls the movement of a character as seen in the user's view or in third person. As the user views the surroundings and his or her movement, in conjunction with the character's motion within the game environment, a **default graphic texture or figure is replaced** by a plug-in, which **advertises** a product or service provided by an ad server. Within the virtual environment of the game, a character or player is visibly influenced by the **advertisement** and, at the same time, still actively taking part in the playing of the game. This reduces the distracting element of **advertisements** within the gaming environment.

Brief Summary Text - BSTX (17):

It is a secondary objective of the present invention to direct **advertising**

to network game players who fit varying demographic profiles. Many games are played via the Internet that users enjoy, which are directly related to age, sex, income group, etc. In the present method, advertisers would seek user information from a particular database on the game server provided to them from a game user login query. Coupling the variety of games made available over the worldwide web or other server with a particular user's demographic profile would be beneficial to companies or services wishing to direct advertising to particular groups of people matching a desired demographic range.

Brief Summary Text - BSTX (18):

It is a third objective of the present invention to include statistical features for each advertisement displayed so the advertiser can rate its effectiveness. The number of times the ad is viewed, the time the ad is displayed on the screen, the game, and the viewer's demographic profile are all provided from the game user computer to the ad server. An advertiser relates directly to an ad server what his or her desired viewer profile and image features are, and in return, the ad server provides the feedback from the user's computer as an identifiable market effectiveness rating. The ad server compiles this information into a form suitable for billing the advertiser and conveying the statistical information to the advertiser.

Drawing Description Text - DRTX (2):

FIG. 1 is block diagram showing the relationship between each server and the flow path of the data sent or collected as an advertisement is implemented and a game player logs onto a network.

Detailed Description Text - DETX (6):

The ad server 26 contacts advertising sources 30 and provides them with advertising formats corresponding to the shapes of the default textures in the texture information 50 provided by the game sources 32. The ad sources 30 then generate and provide the graphical ad images based on a query from the ad server 26. The ad server 26 can then correlate each ad image to an appropriate format to later load into the plug-in portion of the game server software 22. The ad server 26 also provides a description of the intended demographic profile 13 of the user 1 for the advertising, and any specific requirements for the viewing such as minimum age or sex. A demographic profile 13 of the user 1 can be retrieved from the user 1 or user computer 11 by query and stored in an ad server database 26a, or can be retrieved from a user database 24 by networking to login information. The demographic profile 13 may include a user's age group, sex, income, employment group, residence location, or

ethnicity, etc. A specific rate for `impressions` is agreed upon based on demographic impressions and the intended target audience.

Detailed Description Text - DETX (8):

A user database 24 is set up on the game server 20 to track the user's high scores and other game related information, as well as to provide a repository for demographic data 13 relevant to the needs of the ad server 26. The ad server 26 can query the user database 24 when presented with a particular information to extract the demographic data 13 corresponding to an ID 53 for the most effective advertising purposes.

Detailed Description Text - DETX (10):

When a user 1 logs onto the game server 20 from his or her computer 11, he or she provides a user ID and preferably a password 53 to authenticate his or herself and allow for retrieval of the game and any demographic data 13. When the user 1 on the computer 11 chooses a game that is enabled by the present invention, the game software 16, now downloaded or installed and running on the computer 11, queries the ad server 26 with the user's ID, game identification, level of play etc. If the ad server 26 has a copy of the user's demographic data 13 in the ad server database 26a, it searches to locate appropriate advertising for the game and user from the advertising sources 30. Otherwise, the ad server 26 queries the user database 24 implemented in the game server 20 for the user's demographic data 13 and performs the ad matching. Upon choosing advertising appropriate for the game and user 1, the ad server 26 presents the information as ad textures 15 to the user's computer 11 for download into a local texture store 14, along with intended viewing profiles. After the ad textures 15 have been received from the ad server 26 and loaded into the local texture store 14, they are loaded as a plug-in 2 to the server software 22, which selects individual advertising material for presentation to the game player inside the virtual environment of the game.

Detailed Description Text - DETX (11):

Once all of the ad textures 15 are loaded and ready, and the user 1 and the game server 20 are ready, play will commence. During play of the game, the game control engine 10 of the computer 11 builds a graphical image out of an internal representation of the virtual space that the game occurs within. It then `paints`, or visually implements, the mathematical representation of the world with textures from the local texture store 14. The game's virtual space

will have several locations, provided in the texture information 50, where the ad textures 15 received from the ad server 26 will be appropriate to display in lieu of the default game textures. These default textures include 3D or 2D models of shapes and figures, video clips, pictures and signs, or other non-interactive features. The plug-in 2 in the game software 16 selects an appropriate ad texture 15 for advertising, which replaces the default texture and presents the ad texture 15 for display in the graphics generations portion 12 of the game. The plug-in 2 of the game software 16, then being implemented by the user computer 11, also keeps track of the view statistics 33. These include the time each ad texture 15 is displayed, the number of ad textures 15 displayed, the size, in terms of pixels, each ad texture 15 occupies, and the type of views that the ad texture 15 is shown as. These view statistics 33 are logged for later download to the ad server 26. Between each level of play, while the game is waiting to synchronize with the game server 20, additional **advertising** textures 15 and information may be exchanged between the ad server

26 and the user computer 11 having the downloaded plug-in 2 available for **advertising** within the game. At the completion of the game, the user computer 11 sends score and other statistical information from the user's computer 11 to the game server 20. At this time, the plug-in portion 2 transmits the viewing statistics 33 gathered to the ad server 26. The ad server 26 will then transmit confirmation information to the game server 20 to insure credit for playing the **advertising** version of the game server software 22.

Detailed Description Text - DETX (12):

After the game has been played, the ad server 26 calculates the charges to the **advertising** sources 30 based on the user demographic profile 13 and the 'fit' (accuracy in the want or need of the **advertising** source 30) between the intended viewing audience and the actual viewing audience and the number of views or impressions delivered. The ad sources 30 are billed, and upon receipt of the money from the ad sources 30, the company of the game server 20 will be paid their portion of the revenue. They will then pass a portion of the revenue on to the game sources 32, insuring that a steady stream of new content is available for this medium.

Claims Text - CLTX (1):

1. A method for providing **advertising** to a user having a computer, which participates within the virtual space of games played over a network, comprising the steps of:

Claims Text - CLTX (8):

(g) identifying a plurality of ad sources that have the capability of providing a plurality of advertisements to said ad server, adapted to work in conjunction with said game server over said network, each of said advertisements directed to influence said user having said demographic profile, said demographic profile is retrieved from said user by said ad sources and transmitted to said ad server database and stored, and said demographic profile is transmitted from said computer to said user database by a login of said user onto said game server on said network with said user ID;

Claims Text - CLTX (9):

(h) providing to said ad sources a plurality of advertising formats corresponding to said plurality of on-screen items;

Claims Text - CLTX (10):

(i) receiving from said ad sources a plurality of advertising images;

Claims Text - CLTX (11):

(j) correlating each of said advertising images with each of said advertising formats, thereby forming a plurality of ad textures;

Claims Text - CLTX (21):

(b) calculating a plurality of charges to each of said advertising sources based on said demographic profile and said plurality of viewing statistics;